

四川老鹳草属新植物

谭 仲 明

NEW PLANTS OF GERANIUM FROM SICHUAN

Tan Zhong-ming

1. 美姑老鹳草 新种 图版 I

Geranium meiguense Z. M. Tan, sp. nov.

Species affinis *G. refractoidi* Pax et Hoffm. sed rhizomatibus longis, transversis, laminis reniformibus, 5—7-lobatis, lobis obovato-cuneatis, subtus densius hirsutis, petiolis summis 5—10mm longis, stipulis reflexis, inflorescentiis axillaribus, filamentis villosis differt.

Herba perennis Rhizoma transversum vel obliquum, usque ad 14cm longum, 1—1.5cm crassum, squamis membranaceis, atrobrunneis, ovato-lanceolatis, glabris vel puberulis, radicibus gracilioribus instructum. Caules erecti vel suberecti, 20—60cm alti, 2—4mm crassi, inferne pilis pilosis, retrois, luteolis, superne dense luteolo-pilosi atque hyaline patulo-glandulosi. Lamina reniformis, 2—6cm longa, 3—10cm lata, supra atroviridis, pubescens, subtus viridula ad nervos densius adpresse hyalino-hirsuta, usque ad $2/3$ — $3/4$ palmato-5—7-loba-

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CDBI=Chengdu Institute of Biology, Academia Sinica (中国科学院成都生物研究所);

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ta, lobis obovato-cuneatis, inferne integris, superne 2—3-lobulatis, lobulis irregulariter dentatis, dentibus ovato-oblongis, acutis, mucronatis, folia basalia atque inferiora longe petiolata, petiolis 8—27cm longis, retrorsum luteolo-pilosis praesertim densissime infra laminam, petiolis summis 5—10mm longis, dense luteolo-pilosis; stipulae 2—4, reflexae, deltoideo-lanceolatae, longe acuminatae, 1—1.5cm longae, basi 3—8mm latae, brunneae, puberulae. Inflorescentiae axillares, pedunculi 5—20cm longi, luteolo pilosi atque patenti-glandulosi, biflori, pedicelli 2—3cm longi, pilis dense luteolo-pilosis atque pedicelli 2—3cm longi, pilis dense luteolo-pilosis atque patulo-glandulosi instructi; bractee 4, minimae, subglabrae; sepala viridia, basi atropurpureo vato-oblonga, cum mucrone 1.2—1.6cm longa, 3—5mm lata, margine membranacea, mucrone circ. 2mm longo, 5—7 nervata, ad nervos hyalino-hirsuta, petala purpurea, longe obovata, 1.3—1.7cm longa, 4—6mm lata, basi breviter unguiculata atque albo-villosa, sub anthesi reflexa, filamenta 8—12mm longa, inferne albo-villosa, superne glabra, antheris nigris; pistilla filamentis subaequilonga, inferne dense albo-hirsuta, superne glabra, stigmatibus 5-lobatis, glabris. Fructus rostratus, circ. 2.5cm longus; valvulae albo pilosae.

Sichuan (四川): Meigu (美姑), Dafengding (大风顶) alt. 3300m, July 11, 1979, Meigu Exped. 410 (Type, fl. ICD); Mabian (马边), Dafengding (大风顶), alt. 3400m, July 7, 1978, Mabian Exped. 804; Jingding of Mount. Emei (峨眉山金顶), alt. 3000m, July 3, 1952, X. L. Jiang (蒋兴林) and S. S. Chang (张秀实) 31452; same locality, July 4, 1956, Y. H. Tao (陶玉辉) 50392; same locality, July 27, 1965, N. Chao (赵能) 2584.

本种与反瓣老鹤草 (*G. refractoides* Pax et Hoffm.) 相近, 但本种的根茎长, 横生, 叶片肾形, 5—7 深裂, 裂片倒卵状楔形, 下面被较密的硬毛, 顶生叶柄长 5—10 毫米, 托叶倒生, 花序腋生, 花丝具长柔毛而不同。

2. 狭裂老鹤草 新种 图版 II

Geranium angustilobum Z. M. Tan, sp. nov.

Species affinis *G. refracto* Edgew. et Hook. f., sed radicibus fasciculatis, manifeste inflatis, teretibus, caulibus tenuibus, ascendentibus, laminis reniformibus, lobis anguste rhombico-cuneatis, petalis purpureis, filamentis villosis, pistillis hirsutis atque glandulosis differt.

Herba perennis. Rhizoma breve, robustissimum, squamis densis, membranaceis, brunneis, ovato-deltoides, glabris, radicibus fasciculatis, manifeste inflatis, teretibus circumdatum. Caules plures, ascendentes, gracillimi, 15—25cm alti, circ. 1mm crassi, retrorse albo-pilosi et sparsim hyalino-hirsuti. Lamina reniformis vel subcordata, 1.5—2cm longa, 2—3cm lata, supra atroviridis, adpresse pilosa, subtus pallide viridis, sparse hyalino-hirsuta, usque ad 4/5—5/6 palmato-5-lobata, lobis anguste rhombico-cuneatis, margine inferne integris, superne 2—3-pinnati-lobulatis, lobulis ovato-oblongis, apice acutis, mucronatis, petioli basales et inferiores 5—10cm longi, sparse retrorsum albo-pilosi atque patule hyalinohirsuti, praesertim densius infra laminam, petiolis summis circ. 1cm longis, albo-pilosis et patenti-hirsutis, stipulae 2—4, reflexae, membranaceae, brunneae, triangulato-lanceolatae, longe acuminatae, 6—10mm longae, basi 2—4mm latae, albo-puberulae. Inflorescentiae axillares vel terminales, pedunculi 4—11cm longi, retrorse albo-pilosi, sparsim patulo-hirsuti et purpureo glandulosi, biflori vel cymosi, pedicelli 1.5—3cm longi, albo-pilosi atque purpureo-glandulosi praecipue densissime infra calycem, post anthesin refracti; bractee 4, lineares, tenuies, circ. 5mm longae, 1mm latae, albo-puberulae; sepala viridia, basi purpurea, ovato-oblonga cum mucrone circ. 8mm longa, 4mm lata, margine membranacea, mucrone circ. 1mm longo, 3—5-nervata, pilis pilosis, albis ad nervos patulo-glandulosis, purpureis instructa, petala purpurea, obovato-oblonga, circ. 11mm longa, 4mm lata, basi hyalino-villosa, reflexa, filamenta sepalis longiora, 9—10mm longa, sparsim hyalino-villosa, antheris nigris, pistilla filamentis subaequilonga, albo-hirsuta et sparse glandulosa, stigmatibus 5-

lobatis, Fructus circ. 2cm longus, valvulae albe pubescentes et sparsim glandulosae.

Sichuan (四川); Xiangcheng (乡城), on grassland near Rewo (热窝), alt. 4500m, July 28, 1973, Xiangcheng Exped. 2888 (Type, CDBI).

本种与骤折老鹤草 (*G. refractum* Edgew. et Hook. f.) 相近, 但本种侧根簇生, 膨大, 圆柱形, 茎纤细, 斜升, 叶片肾形, 裂片狭菱状楔形, 花瓣紫红色, 花丝具长柔毛, 雌蕊具硬毛和稀疏的腺毛而不同。

3. 理县老鹤草 新种 图版Ⅲ

Geranium pseudo-farreri Z. M. Tan, sp. nov.

Species affinis *G. farreri* Stapf., sed caulibus patentiglandulosis, laminis late reniformibus, utrinque eglandulosis, palmato-5—7-lobatis, lobis 2-3-lobulatis, lobulis dentatis vel laciniatis, raro integris, petiolis sparse patulo-glandulosis atque pubescentibus, sepalis ablo-longo-hirsutis, fructibus pubescentibus differt.

Herba perennis. Rhizoma obliquum vel subperpendiculare, 2—8cm longum, circ. 1cm crassum, squamis atro-brunneis, late ovato-triangularibus, glabris, radicibus fasciculatis, manifeste inflatis, teretibus vel conoideis instructum. Caules ascendentes, 20—45cm alti, 2—3mm crassi, patulo-glandulosi et retrorsum albo-pilosi. Lamina lato-reniformis, e basi ad apicem 2—6cm longa, 3—10cm lata, supra atroviridis, sparsim albo-adpresso-pubescent, subtus pallide viridis, albe hyaline longo-hirsuta, usque ad 3/4—4/5 palmato-5—7-lobata, lobis obovato-cuneatis, infra medium integris, supra medium 2—3-lobulatis, lobulis dentatis vel laciniatis, raro integris, folia basalia atque inferiora longe petiolata, petiolis 10—30cm longis, petiolis caulinis 3—16cm longis, omnino patulo-glandulosis atque albo-pilosis praesertim densius infra laminam, petiolis summis 1—2cm longis, densius pilosi, stipulae 2—4, luteo-deltoidae, acuminatae, 3—6mm longae, 1.5—2.5mm latae, albo-pubescentes atque longo ciliatae, interdum glandulosae. Inflor-

escentiae axillares, pedunculi 5—18cm longi, cum pedicello retrorsus albo pilosi, sparsim patenti-glandulosi, biflori, pedicelli 2—6cm longi, bractee 4, lineari-lanceolatae, 4—6mm longae, circ. 1mm latae, albo-adpresso-pubescentes atque longo-ciliatae, nonnunquam sparse hyalino-glandulosae; sepala viridia, basi purpurea, ovato-oblonga cum mucrone 7—10mm longa, 2—3mm lata, mucrone circ. 1mm longo, margine membranacea, ciliata, 5-nervata, pilis albo-longo-hirsutis vel pilosis, interdum hyaline patulo-glandulosis instructa; petala purpurea, late obovata, 12—16mm longa, 7—10mm lata, apice rotundata vel emarginata, basi angustata, breviter unguiculata, albo-villosa atque ciliata, filamenta alba, 6—8mm longa, inferne villosa, superne glabra, antheris atropurpureis; pistilla filamentis subaequilonga vel filamentis breviora, inferne dense albo-hirsuta, superne glabra, stigmatibus 5-lobatis, glabris. Fructus 2—2.5cm longus; valvulae albo-pilosae. Semina brunnea, oblonga, subtiliter favosa.

Sichuan (四川): Lixian (理县), Miyalu (米亚罗), alt. 3100 m, July 14, 1982, Z. M. Tan (谭仲明) 25 (Type, SZ), same locality, July 14, 1982, Z. M. Tan 14, same locality, alt. 3500 m, July 6, 1958, S. Y. Chen (陈善塘) 5537, same locality, July 13, 1958, S. Y. Chen 5547, same locality, Dabanzhao (大板昭), alt. 3650m, June 28, 1956, D. P. He (何荻平) 44560, same locality, alt. 3000m, April 20, 1954, W. K. Hu (胡文光) 53—310; Songpan (松潘), Matann (马塘), July 20, 1937, H. C. Yang (杨宏清) 65, same locality, Huanglong (黄龙), alt. 3100m, July 9, 1959, Songpan Exped. 1596; Hongyuan (红原), Mount. Zhegu (鹵鹵山), alt. 3300m, June 28, 1957, C. Y. Chang (张泽荣) 22449, same locality, Shuajingshi (刷金寺), July 13, 1982, Z. M. Tan 9; Jinchuan (金川), Kachexiang (卡撒乡), alt. 3900m, July 29, 1958, Jinchuan Exped. 3538, same locality, alt. 3100 m, August, 1958, Jinchuan Exped. 3598.

本种与圆柱根老鹳草 (*G. farreri* Stapf.) 相近, 但本种茎具开展的腺毛, 叶片宽肾形, 两面无腺毛, 掌状 5—7 深裂, 裂片 2—3 小裂, 小

裂片具齿或深条裂，稀全缘，叶柄疏生开展的腺毛和柔毛，萼片具白色长硬毛，果实被柔毛而不同。

4. 宽肾叶老鹳草 新种 图版IV

Geranium platyrenifolium Z. M. Tan, nov. sp.

Species affinis *G. yunnanensi* Franch., sed laminis later eniformibus palmato-3—5-partitis, lobis late obovato-cuneatis vel cuneato-flabelliformibus, 2—3-lobulatis, lobulis irregulariter laciniatis, subtus densius hirsutis, stipulis minoribus, tantum 4—5mm longis, 1—1.5mm latis, fructibus erectis differt.

Herba perennis. Rhizoma perpendiculare, 1—14cm longum, 5—10mm crassum, radicibus manifeste tuberantibus. Caulis 15—30cm altus, circ. 2mm crassus, decumbens vel ascendens, reverso-pilosus. Lamina late reniformis, 3—4.5cm longa, 6.5—10cm lata, supra atroviridis, adpresse pilosa, subtus cinereo-alba, densius adpresso-hirsuta, usque ad $2/3$ — $6/7$ palmato-3—5-lobuta, lobis late obovato-cuneatis vel cuneato-flabelliformibus, apice usque ad $1/2$ partem 2—3-lobulatis, lobulis irregulariter laciniatis, lacinulis oblongis, integris vel irregulariter dentatis, acutis atque minute mucronatis, folia basalia longe petiolata, petiolis 6—13cm longis, dense patenti-pilosis praesertim densissime infra laminam, caulina breviter petiolata, petiolis 1—3cm longis, summa brevissime petiolata, stipulae membranaceae, oblongo-lanceolatae, 4—5mm longae, 1—1.5mm latae, acuminatae, pilosae. Pedunculi 3—9cm longi, albo-pilosi, biflori, pedicelli 1.5—2.2cm longi, pilosi praecipue densissime infra calycem, bractae 4, oblongo-lanceolatae, 5—6mm longae, 1—1.5mm latae, albo-pilosae, sepala ovato-oblonga, 8—10mm longa, 3—4mm lata, margine membranacea, mucronata puberulaque, mucrone circ. 1mm longo, 3-5-nervata, ad nervos longe hirsuta, petala purpurea, late obovata, 1.5—1.8cm longa, 1—1.3cm lata, apice rotundata, basi breviter unguiculata, longe ciliata villosaque, filamenta 5—6mm longa, infra medium longe pilosa, pistilla filamentis paulo longiora, dense albo-hirsuta, stigmatibus 5-lobatis. Fructus

prostratus, erectus, circ. 2cm longus, valvulae albo-pilosae, rostrum glabrum. Semina brunnea, ellipsoidea, 3mm longa, 2mm crassa, minute impresso-punctata.

Sichuan (四川): Muli (木里), Hetaowan (核桃湾), June 28, 1978, Muli Exped. 260 (Type, fl. ICD), same locality, Nanjiacum (南家村), alt. 2550m, August 23, 1978, Q. S. Zhao (赵清盛) and Y. B. Yang (杨亚宾) 8269, same locality, Nanjiacun, June 20, 1978, Y. B. Yang 7003.

本种与云南老鹳草 (*G. Yunnanense* Franch.) 相近, 但本种的叶宽肾形, 掌状3—5深裂, 裂片宽倒卵状楔形或扇状楔形, 2—3小裂, 小裂片作不整齐的条裂, 下面密被硬毛, 托叶小, 长仅4—5毫米, 宽1—1.5毫米, 果实直立而不同。

5. 具腺弗老氏鹳草 新变种 图版V

Geranium franchetii var. *glandulosum* Z. M. Tan, var. nov.

A typo recedit caulibus albo-pilosis atque patulo-glandulosis, laminis subtus tenuiter pilosis sparsim glandulosisque, pedunculis et pedicellis albo-pilosis atque patentiglandulosis.

Sichuan (四川): Pengshui (彭水), Tiaotuo (条拓), Shizidong (狮子洞), alt. 1350m, June 15, 1979, Pengshui Exped. 572 (Type, fl. ICD), same locality, July 15, 1979, Pengshui Exped. 574.

本变种与原种的主要区别在于, 茎具白色柔毛和开展腺毛, 叶片下面被细柔毛和疏生腺毛, 总花梗和花梗被白色柔毛和开展腺毛。

6. 顶花老鹳草 新种 图版VI

Geranium terminale Z. M. Tan, sp. nov.

Species affinis *G. hupehano* R. Knuth., sed caulibus inferne dense patentiglandulosis, lobis laminarum late rhombico-cuneatis, petiolis inferne sparse glandulosis, inflorescentiis terminalibus, cymosis, pistillis brevissimis, tantum circ. 2mm longis differt.

Herba perennis. Rhizoma subperpendiculare, circ. 4cm longum, 5mm crassum, squamis brunneis, oblongo-lanceolatis, glabris, radicibus gracilioribus instructum. Caules erecti, 30—50cm alti, 2mm crassi, inferne canaliculati, retrorsum albobubes-

centes atque dense patenti-glandulosi, superne retrorsum adpresso-pubescentes, 4cm supra basin regulariter pseudodichotome ramosi, inferne simplices. Lamina 5-angularireniformis, 3—5cm longa, 5—9cm lata, supra atroviridis, sparsim adpresso-pubescent, subtus viridula, sparsim hyaline adpresso-pilosa paulo dense ad nervos, usque ad 6/7—7/8 palmato-5-lobata, lobis late rhombico-cuneatis, longe acuminatis, inferne integris, superne pinnati-lobulatis, lobunlis oblongis, integris vel irregulariter dentatis, apice acutis, mucronatis, lamine summa lanceolata 2—2.5cm longa, circ. 5mm lata, inferne tantum 2—3-pinnatifida, folia basalia atque inferiora longe petiolata, petiolis 12—18cm longis, inferne retrorsum adpresso-pubescentibus atque sparse hyaline patenti-glandulosis, superne retrorso-pilosis praesertim densius infra laminam, petiolis superioribus tantum pilosis, stipulae 2—4, brunneae, oblongo-lanceolatae vel ellipticae, 5—15mm longae, 2—4mm latae, sparse albo-puberulae. Inflorescentiae terminales, cymosae, rachis 3—4cm longi, retrorsum adpresso-pubescentes, pedunculi 1—5cm longi, cum pedicello retrorsum albo-pilosi, biflori, pedicelli 8—15mm longi, bractee 4, brunneae, lineares vel ovato-triangulares, 4—6mm longae, 1—3mm latae, sparse albo-puberulae, sepala luteo-viridia, basi purpurea, ovato-oblonga, cum mucrone 6—7mm longa, 2.5—3.5mm lata, mucrone 1—2mm longo, margine membranacea, ciliata, 3—5-nervatae, puberula, ab nervis hyaline adpresso-pubescentia, petala rubella, ovato-oblonga, circ. 1.2cm longa, 4mm lata, apice rotunda, basi angustata, unguiculata atque albo-villosa, filamenta sepalis paulo longiora, inferne albo-villosa, superne glabra, pistilla brevissima, tantum circ. 2mm longa, ovariis ovoideo-globosis, breviter albo-hirsuta, stylis inconspicuis, stigmatibus 5-lobatis, glabris. Fructus ignotus.

Sichuan (四川): Xide (喜德), Tuanjie Commune (团结公社), Wajiliangzi (瓦基梁子), alt. 2800m, July 13, 1979, Xide Exped., 586 (Type, fl. ICD).

本种与湖北老鹳草 (*G. hupehanum* R. Knuth.) 相近, 但本种茎在下部密被开展的腺毛, 叶片的裂片宽菱状楔形, 叶柄在下部疏生腺毛, 花序顶生, 聚伞花序, 雌蕊极短, 仅长约 2 毫米而不同。

7. 越西老鹳草 新种 图版 VII

Geranium yuexiense Z. M. Tan, sp. nov.

Species affinis *C. fangii* R. Knuth., sed rhizomatibus robustis, circ. 6cm longis, 1.5cm crassis, radicibus pluribus, manifeste inflatis, teretibus, caulibus pluribus inferne retrorsum adpresso-pubescentibus atque sparsim hyaline patenti-glandulosis, laminis basi subtruncatis, petiolis inferne adpressopubescentibus atque sparsim patulo-glandulosis, inflorescentiis axillaribus vel terminalibus, pedunculis bifloris vel cymosis differt.

Herba perennis. Rhizoma robustum, transversum, circ. 6cm longum, 1.5cm crassum, squamis membranaceis, brunneis, ovato-triangularibus, longe acuminatis, glabris, radicibus pluribus, manifeste inflatis, teretibus instructum. Caules plures, ascendentes, 30—40cm alti, circ. 2mm crassi, inferne retrorsum luteolo-pubescentes atque sparsim hyaline patenti-glandulosi, superne sparse retrorsum adpresso-pubescentes. Lamina ambitu lato-cordata vel reniformis, basi subtruncata, e basi ad 2.5—5.5cm longa, 3—6.5cm lata, supra atroviridis, sparsim pubescens, subtus pallide viridis, luteole adpresso-pubescentis praesertim ad nervos, usque ad 6/7—7/8 palmato-3—5-lobata, lobis subrhombico-cuneatis, longe acuminatis, inferne integris, superne pinnatifidis, lobulis oblongis, apice acutis, nigre mucronatis, integris, raro irregulariter dentatis, folia basalia atque inferiora longius petiolata, petiolis 10—12cm longis, inferne retrorsum adpresso-pubescentibus et sparse hyaline patulo-glandulosis, superne luteolo-pilosis praesertim densius infra laminam, petiolis caulinis 5—8cm longis, petiolis summis 5—10mm longis, dense luteolo-pilosis, stipulae 4, brunneae, triangulari-lanceolatae vel ovato-oblongae, 1—1.5cm longae, basi 2—4mm latae, adpressopubescentes. Inflorescentiae axillares vel

terminales, pedunculi 2—13cm longi, retrorsum adpresso-pubescentes, biflori vel cymosi, pedicelli 8—15mm longi, retrorsum luteole adpresso-pilosi vel revolute pilosi, bractee 4, fulvidae, oblongo-lanceolatae, 6—12mm longae, 1—2mm latae, sparsim pubescentes, sepala ovato-oblonga cum mucrone 5—6mm longa, 2.5—3.5mm lata, margine membranacea, albo-longo-ciliata, mucrone circ. 1mm longo, 3-nervata, adpresso-pubescentia, ad nervos adpresso-hirsuta, petala rubella, obovato-oblonga, 5—8mm longa, circ. 3mm lata, apice rotunda, basi abrupte angustata, interdum stipitata, stipite circ. 1mm longo, hyaline albo-villosa, filamenta sepala paulo longiora, inferne dilatata, luteolo-villosa, superne glabra, antheris nigris, pistilla filamentis subaequilongae, breviter luteolo-hirsuta, stigmatis 5-lobatis, glabris. Fructus ignotus.

Sichuan (四川): Yuexi (越西), Laji Commune (拉及公社), alt. 3600m, July 11, 1979, Yuexi Exped. 704 (Type, fl. ICD).

本种与方氏老鹳草 (*G. fangii* R. Knuth.) 相近, 但本种根茎粗壮, 长约6厘米, 粗约1.5厘米, 具多数膨大, 圆柱状侧根, 茎多数, 下部被倒伏毛, 疏生透明开展的腺毛, 叶片基部近截形, 叶柄下部被倒伏毛和疏生开展腺毛, 花序腋生或顶生, 总花梗具2花或为聚伞花序而不同。

8. 具腺老鹳草 新变种 图版Ⅷ

Geranium wilfordii var. *glandulosum* Z. M. Tan, var. nov.

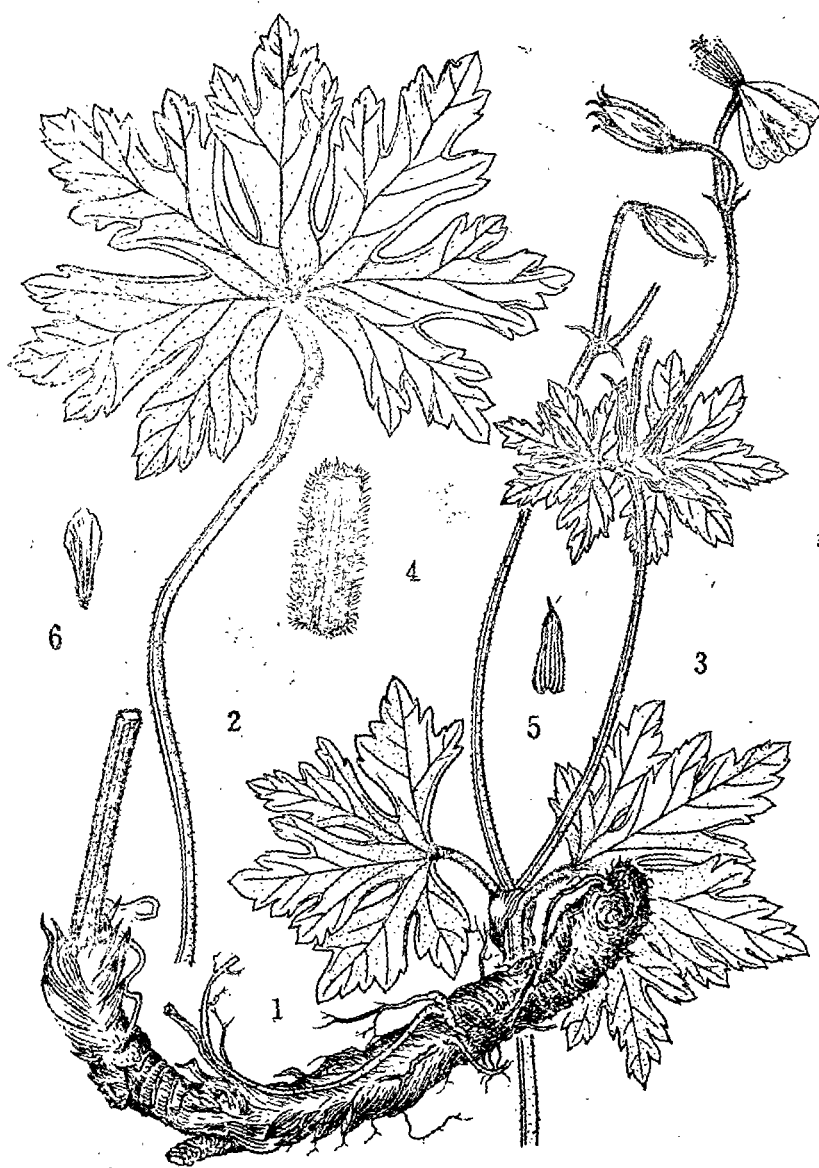
A typo recedit caulibus sparsim patulo-glandulosis, inflorescentiis cymosis vel bifloris, pedunculis, pedicellis calycibusque glandulosis, petalis albis vel roseis, glabris vel tantum sparse pilosis.

Sichuan (四川): Baoxing (宝兴), Dengchigou (邓池沟), Huangshuijing (黄水井), alt. 2200m, September 27, 1936, K. L. Chu (曲桂龄) 3935 (Type, SZ); same locality, Yongxing Commune (永兴公社), September 1, 1978, Baoxing Exped 1094, Mount. Emei (峨眉山), alt. 800m, November 3, 1956, G. F. Li (李国凤) 53108, same locality, alt. 1100m, October 17, 1956, G. F. Li 52770, same locality, Wanniansi (万年寺), October 3, 1958, S. Y. Chen (陈善塘) and Z. He (何铸) 6146, same locality,

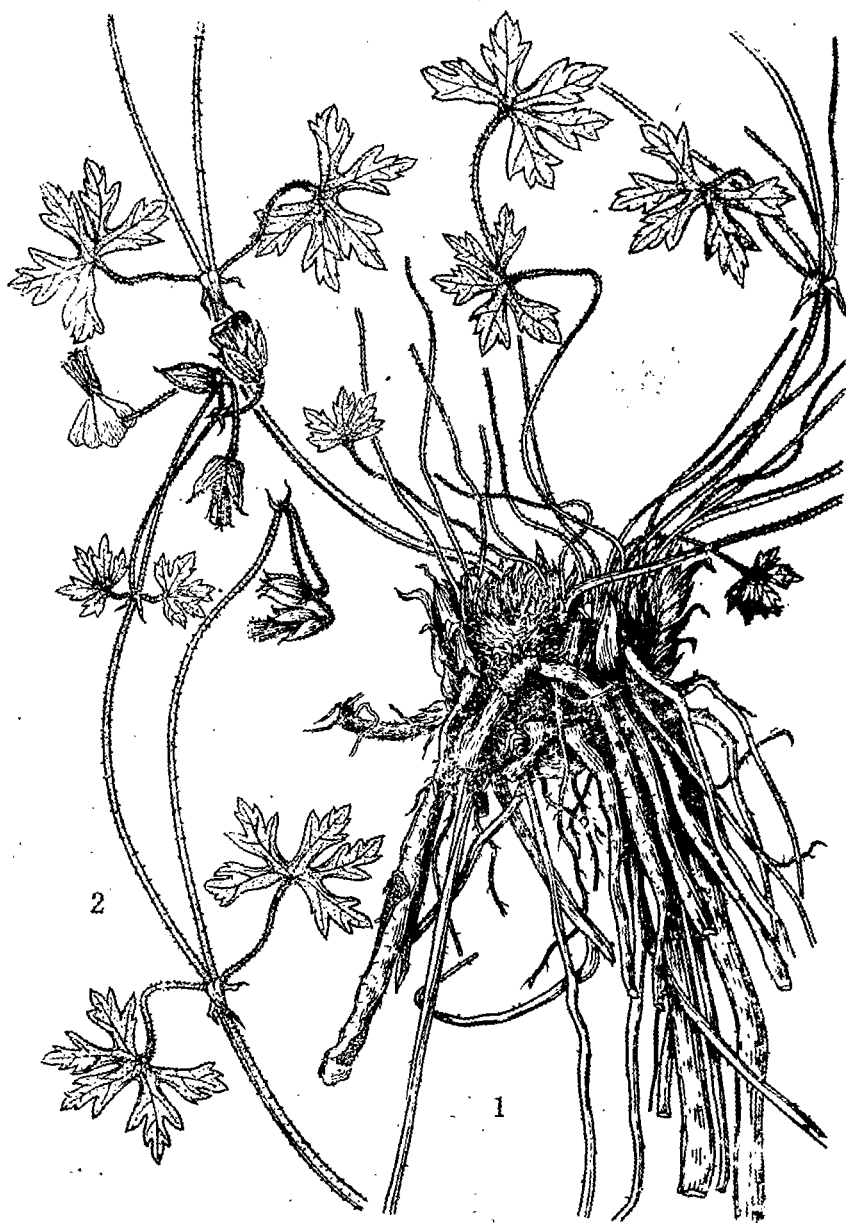
Heilongjiang (黑龙江), alt. 700m, Y. H. Tao (陶玉辉) 15, same locality, Maliugou (麻柳沟), alt. 700m, September 5, 1956, Y. H. Tao 51949, Guanxian (灌县) Mount. Qingchen (青城山), alt. 700m, September 1, 1982, Z. M. Tan 28, Xinshan (秀山), alt. 1500m, August 8, 1979, Xiushan Exped. 1036, same locality, alt. 1500m, August 11, 1979, Xiushan Exped. 1059, Chengkou (城口), Qiganshan (旗杆山), alt. 1200m, October 14, 1958, T. L. Dai (代天伦) 103754, same locality, alt. 1750m, August 29, 1958, T. L. Dai 102154.

Hubei (湖北): Junxian (均县), Mount. Wudang (武当山), Huangjintang (黄金堂), alt. 1500m, August 14, 1959, J. Q. Xing (邢吉庆) 11703.

本变种与原种的区别在于, 茎具开展的腺毛, 花序为聚伞花序或具2花, 总花梗, 花梗和花萼具腺毛, 花瓣白色或淡红色, 无毛或仅仅疏生柔毛。



图版I 美姑老鹳草 *Geranium meiguense* Z. M. Tan (美姑采集队 410).
 1. 根茎及茎下部原大; 2. 下部茎生叶原大; 3. 茎上部原大, 示花序和花; 4. 茎的一段放大, 示毛; 5. 萼片原大; 6. 花瓣原大. (吕发强绘)

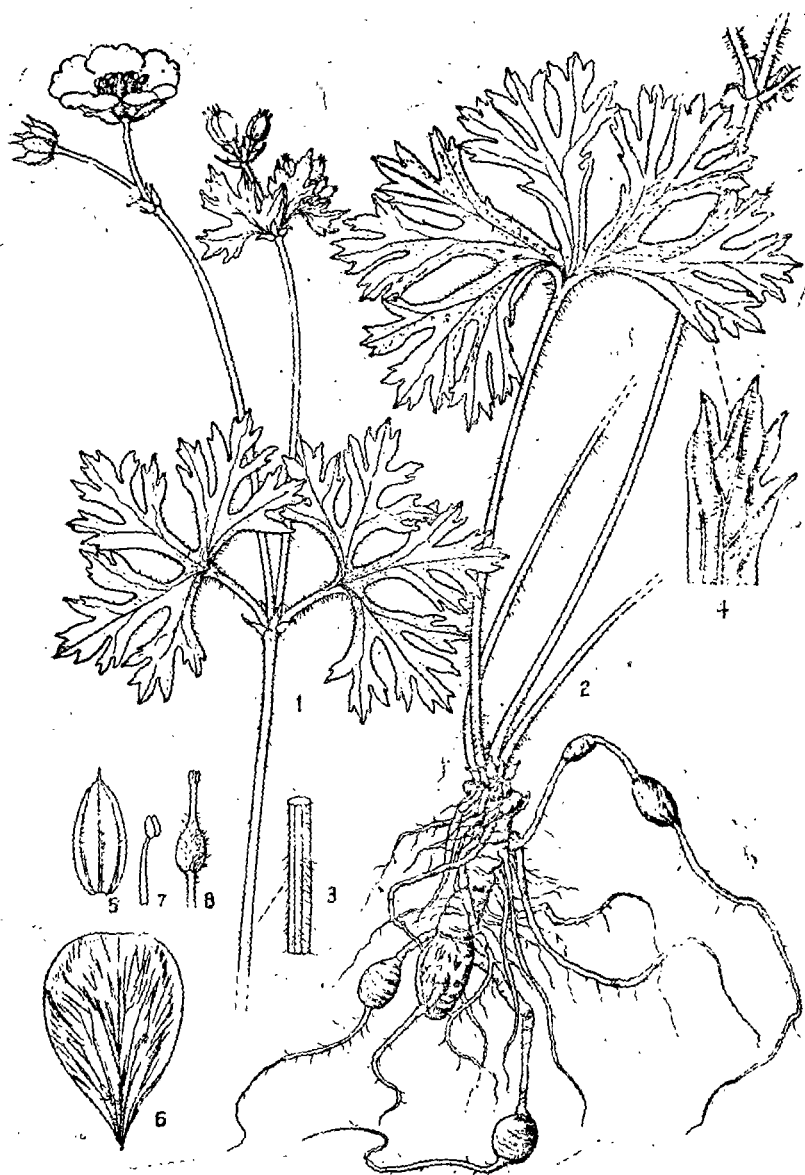


图版 I 狭裂老鹳草 *Geranium angustilobum* Z. M. Tam (乡城采集队 2888).
 1. 植株下部原大, 示根茎, 根, 茎和叶; 2. 茎上部原大, 示花序和花。 (吕发强绘)

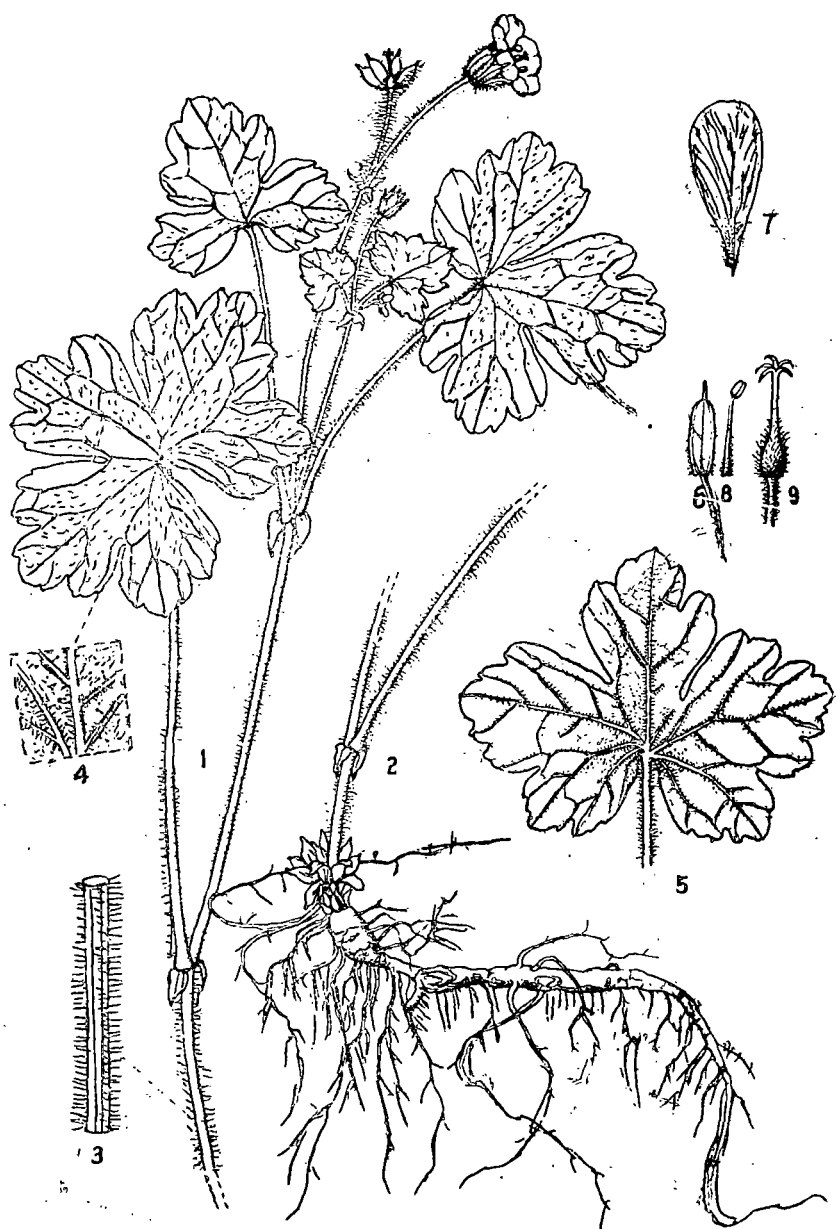


图版Ⅱ 理县老鹳草 *Geranium pseudo-farreri* Z. M. Tan (谭仲明 25)。

1. 植株下部原大，示根茎、根、茎及基生叶；2. 茎上部原大，示顶部茎生叶及花。(吕发强绘)。



图版Ⅱ 宽肾叶老鹳草 *Geranium platyrenifolium* Z. M. Tan (木里采聚队 280).
 1—2. 植株原大, 3. 茎的一段放大示毛, 4. 叶下面放大示毛, 5. 萼片×3, 6. 花瓣×3, 7. 雄蕊×3, 8. 雌蕊×3. (冯先洁绘)



图版V 具腺弗氏老鹳草 *Geranium franchetii* var. *glandulosum* Z. M. Tan (彭水采集队 572)。

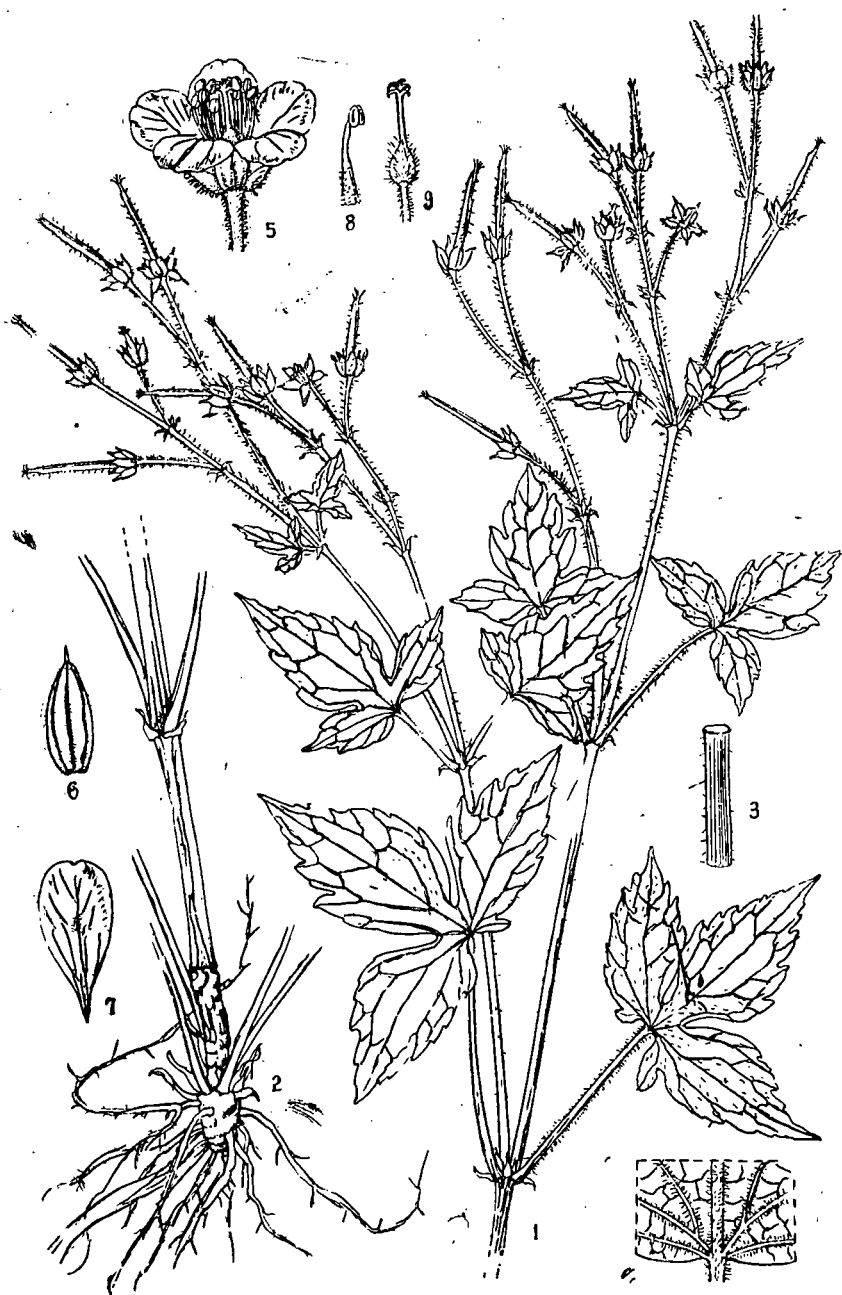
1—2. 植株原大；3. 茎的一段放大示柔毛和腺毛；4. 叶部份放大，示下面的柔毛和腺毛；5. 叶片原大；6. 萼片 $\times 2$ ；7. 花瓣 $\times 2$ ；8. 雄蕊 $\times 2$ ；9. 雌蕊 $\times 2$ 。 (冯先洁绘)



图版Ⅶ 顶花老鹳草 *Geranium terminale* Z. M. Tan (喜德采集队 586).
 1. 植株下部原大, 示根茎、根、茎、基生叶和下部茎生叶; 2. 茎下部一段放大, 示密腺毛; 3.
 茎上部原大, 示顶生叶, 花序和花。 (吕发强绘)



图版Ⅶ 越西老鹳草 *Geranium yuexiense* Z. M. Tan, (越西采集队 704).
 1. 植株下部原大, 示根茎、根、鳞片、茎, 基生叶和下部茎生叶; 2. 植株上部原大, 示花序和花; 3. 萼片 $\times 4$; 4. 花瓣 $\times 4$; 雄蕊和雌蕊 $\times 6$. (李锦绘)



图版Ⅶ 具腺老鹳草 *Geranium wilfordii* var. *glandulosum* Z. M. Tan(曲桂龄 3935).
1—2. 植株原大; 3. 茎放大, 示柔毛; 4. 叶片下面放大, 示脉上的毛; 5. 一朵花放大; 6. 萼片×5; 7. 花瓣×5; 8. 雄蕊×5; 9. 雌蕊×5. (冯先洁绘)